UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,196	04/06/2000	Kam Chan	2705-94	8932

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MARGER JOHNSON & MCCOLLOM, P.C.
1030 SW MORRISON STREET
PORTLAND, OR 97205

EXAMINER
WAHBA, ANDREW W

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr><td rowspan="2" style="vertical-align:middle"><i>Office Action Summary</i></td><td colspan="2">Application No.</td><td>Applicant(s)</td></tr>
<tr><td colspan="2">09/544,196</td><td>CHAN ET AL.</td></tr>
<tr><td rowspan="2"></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td>Andrew W Wahba</td><td>2661</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 October 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 April 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage

        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/27/04</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-14 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3.   Claims 1-4, 7-25 and 28-29 are rejected under 35 U.S.C. 102(e) as being

anticipated by Shaffer et al, hereinafter "Shaffer" (US Patent 6,411,601).

With regard to claims 1, 3, 7, 24 and 28, Shaffer discloses that step 70

determines the resource requirements specified in a call request, as illustrated by

Figure 4. The resource requirements include DSP resources (CPU utilization value). In

step 72, the resource availability monitor 42 (processor / gauging software) determines

the level of available resources (CPU utilization threshold). At decision step 74, the

resource availability monitor 42 determines (comparing) whether the required level of

any resource specified in the call request is above the corresponding availability level

for the network resource (column 6, line 57 – column 7, line 4). In the event that a call

request specifies a requested network resource level above the corresponding

availability levels (larger than the threshold), a resource reservation mechanism 46

(deny flag / indicating refusal / call refusing software / refusing to accept or answer) is

invoked, and the call may be placed in a DSP resource queue (column 7, lines 8-12 and

15-20).

With regard to claims 2, 4, 16 and 25, Shaffer discloses that in step 72, the

resource availability monitor 42 determines the level of available resources (CPU

utilization threshold) (column 6, lines 65-67). The Office takes Official Notice that

resource requirements, including DSP resources (CPU utilization value) (column 6, lines

57-63), may be set to a value lower that the maximum available so as to prevent the

processor form working at 100% capacity so as to leave some processor capacity as a

reserve.

With regard to claim 8 and 29, Shaffer discloses that step 70 determines

(updated) the resource requirements specified in a call request (incoming call / ring

flag), as illustrated by Figure 4. The resource requirements include DSP resources

(CPU utilization value) (column 6, lines 57-63),

With regard to claims 9 and 17, the applicant does not disclose any benefit or

reason for selecting a CPUT value that is 70% utilization of the CPU. Rather, the effect

of higher or lower values is explained. 70% is not shown to have any optimal

characteristics and it is inherent that Shaffer faced the same tradeoff between sound

quality and call volume.

With regard to claims 10, 11, 18 and 19, Shaffer discloses that step 70 determines (updating) the resource requirements specified in a call request (incoming call / ring flag), as illustrated by Figure 4. The resource requirements include DSP resources (CPU utilization value) (column 6, lines 57-63),

With regard to claims 12 and 20, Shaffer discloses decision step 74 in which the resource availability monitor 42 determines (determines) whether the required level of any resource specified in the call request is above the corresponding availability level for the network resource (column 6, line 57 – column 7, line 4).

With regard to claim 13 and 21, in the event that a call request specifies a requested network resource level above the corresponding availability levels, a resource reservation mechanism 46 (indicating refusal / busy signal) is invoked, and the call may be placed in a DSP resource queue (column 7, lines 8-12 and 15-20).

With regard to claim 14, Shaffer discloses the use of queues in a preferred embodiment (column 7, lines 12-15). Thus the use of queues is not required.

With regard to claim 15, Shaffer discloses that step 70 determines the resource requirements specified in a call request, as illustrated by Figure 4. The resource requirements include DSP resources (CPU utilization value). In step 72, the resource availability monitor 42 (processor) determines the level of available resources (CPU utilization threshold). At decision step 74, the resource availability monitor 42 determines whether the required level of any resource specified in the call request is above the corresponding availability level for the network resource (column 6, line 57 – column 7, line 4). In the event that availability of all requested resources is above their

requested levels, the call setup subsystem 48 establishes the call in step 84 (answer

the incoming call) (column 7, lines 4-7). In the event that a call request specifies a

requested network resource level above the corresponding availability levels (larger

than the threshold), a resource reservation mechanism 46 (deny / indicating refusal /

deny flag) is invoked (column 7, lines 8-12). In a preferred embodiment, the call may be

placed in a DSP resource queue (placed in a queue) (column 7, lines 15-20).

With regard to claims 22 and 23, in the event that a call request specifies a

requested network resource level above the corresponding availability levels, a

resource reservation mechanism 46 (does not place refused calls in a queue) is invoked

(column 7, lines 8-12). In a preferred embodiment, the call may be placed in a DSP

resource queue (places accepted calls in a queue) (column 7, lines 15-20).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 5, 6, 26 and 27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shaffer et al, hereinafter "Shaffer" (US Patent 6,411,601) in view of

Kung et al, hereinafter "Kung" (US Patent 6,570,855).

With regard to claims 5 and 26, Shaffer does not expressly disclose determining

a CPU utilization threshold for a bank of processors.

Kung discloses that when the call manager's load exceeds a predetermined load level, a M1 module determines an alternate call manager to take some of the load (column 31, lines 2-11). The call manger and alternate call manager collectively read on applicant's bank of processors.

A person of ordinary skill in the art would have been motivated to employ Kung in Shaffer so as to ameliorate load of an overloaded call manager (Kung, column 2, lines 1-2). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Shaffer and Kung so as to obtain the invention as specified in claims 5 and 26.

With regard to claims 6 and 27, Shaffer does not disclose the specific type of memory device used. In the disclosed system, Shaffer may have selected anyone of a variety of memory devices, including an NVRAM, to prevent the loss of information when power is lost.

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (571) 272-3081. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.
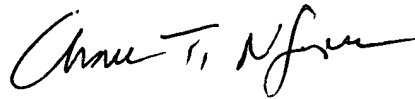
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully Submitted,

Andrew Wahba
Patent Examiner
April 15, 2005

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600